DETAILED ACTION

1. This Action is in response to the Amendment filed 9/13/2010. Claims 1-3, 7-8, 10-29, 45, 47-61, 68-69, 109-110, 127-135, and 151 are pending and rejected.

Response to Arguments/Response to Amendments

2. The prior grounds of rejection are withdrawn in view of the amendments to the claims. The new grounds of rejection set forth below are necessitated by amendment.

3. Applicant's arguments regarding the 35 USC 103(a) rejections were fully considered. Applicant argues the claims as amended. The previous grounds of 103(a) rejection are withdrawn.

Applicant further argues that Brown does not teach or suggest performing the claimed steps on a noun, verb, etc. The Examiner maintains that the prior art, as modified, would teach or suggest performing the claimed operations on a noun, verb, adjective, sentence, etc., as claimed. Brown is drawn to a search environment for various types of documents, especially books and articles. Books and articles are understood to typically contain content, such as words and sentences. Based on this reasoning, it would have been obvious to modify Brown to support the claimed subject matter, as described below.

Applicant further argues that Kennedy does not teach or suggest "identifying capitalizations and patterns for words" and "use of an acronym resolving algorithm" because it is "not required" to eliminate the duplicate response to a query. The examiner respectfully disagrees.

As stated in the prior rejection, Brown as applied above does not expressly teach identifying capitalizations and patterns for words by accessing a word database or an acronym resolving algorithm.

However, Kennedy teaches identifying capitalizations and patterns for words (e.g., synonyms, acronyms) by accessing a word database (e.g., fig. 3), and an acronym resolving algorithm (e.g., fig. 3, resolving of acronym for Compact Disk/CD).

Applicant appears to argue that Kennedy is nonanalogous art. However, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Kennedy is in the field of Applicant's endeavor (knowledge base, see col. 1, l. 57) and reasonably pertinent to the particular problem with which applicant was concerned (e.g., to find capitalizations and patterns for words/resolving acronyms by accessing a word database). Invalid responses to query are eliminated by comparing synonyms of a stripped query to a response (e.g., figs. 3-4). In doing so, Kennedy teaches identifying capitalizations and patterns for words by accessing a word database (fig. 3), and an acronym resolving algorithm, as claimed.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Brown, capitalizations and patterns for words are found, and acronyms are resolved. The motivation would have been to facilitate data accessibility, search, and retrieval, as known to one of ordinary skill in the art and taught

by Kennedy. For example, a better search and retrieval with fewer invalid responses can be conducted using the claimed word database. As such, the prior art teaches or suggests at least the claimed subject matter.

As to claims 51-52, Applicant argues that Brown does not re-compute a data object network or re-compute results. The examiner respectfully disagrees. The broadest reasonable interpretation has been given to the claims. The claims do not recite, for example, particularly what results are recomputed, or what data is contained within the object network, nor what "recomputation" specifically means. Using the broadest reasonable interpretation, Brown teaches or suggests the claimed subject matter, because the iterative process repeats processing (i.e., "recomputes") on the data relationship network to identify the parents and children (and ancestors) (e.g., col. 13, l. 48 - col. 14, l. 34). Also see below rejection in response to the amendment which contains an alternate interpretation of the claimed subject matter.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-3, 7-8, 10-29, 45, 47-61, 68-69, 109-110, 127-135, and 151 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one

skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

As to all independent claims, the specification at [0200-0221] appears to discuss calculating an average observed to expected ratio, but does not appear to support identifying "previously unknown relationships between an object query and the data objects" using that ratio.

Dependent claims are rejected because they depend from one of the above rejected claims.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-3, 7-8, 10-29, 45, 47-61, 68-69, 109-110, 127-135, and 151 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to all independent claims, it is unclear as to whether the "consisting of" consists of only one of the recited items, or any combination of the items. For example, it does not appear to be possible to choose only a sentence from the group, because sentences include a verb, and this means that at least two items are chosen from the group.

Dependent claims are rejected because they depend from one of the above rejected claims.

The broadest reasonable interpretation has been given to the claims.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 1-3, 7-8, 10-15, 17-29, 47-58, 109-110, and 151 are rejected under 35 USC 103(a) as being unpatentable over Brown et al. (US Patent 5,875,446), hereinafter "Brown," in view of Kennedy et al. (US Patent 6,269,364), hereinafter "Kennedy," and further in view of Pennock et al. (US Patent 6,484,168), hereinafter "Pennock."

As to claim 1, Brown teaches the claimed subject matter including:

A source of data comprising one or more domains of information (e.g., figs. 2-5, col. 6, ll. 25-30);

An object relationship database comprising data objects from the one or more domains of information (e.g., figs. 2-5, fig. 6-9 for the specific structure of database);

A processor (e.g., col. 6, ll. 10-25) linked to the ORD, wherein the processor executes a knowledge discovery engine (software) where relationships between two or more integrated data objects within the ORD are (a) identified as direct or indirect relationships (e.g., col. 8, ll. 22-55, col. 9, ll. 42-48), retrieved, grouped into categories selected from the group consisting of positive effect, negative effect, physical association, and logical association (e.g., fig. 13; parent-child relationships are understood to read on at least a physical or a logical association; also see col. 13, ll. 49-51), ranked based on a relative strength of the identified relationship between direct and

indirect objects (e.g., col. 15, ll. 20-40, fig. 8, col. 8, ll. 22-40), filtered, and numerically evaluated (Also see in general, figs. 10-13, at least cols. 12, l. 54 – col. 16, l. 34; col. 10, ll. 16-35, 65-67, col. 13, ll. 30-50, col. 14, ll. 24-26, col. 15, ll. 20-42, 65-67).

A user interface linked to the processor (e.g., fig. 13).

Brown does not expressly teach wherein each data object consists of a noun, verb, adjective, adverb, phrase, sentence, symbol, or numeric character.

However, Brown is drawn to items such as books, articles, or reports that contain text (col. 6, ll. 25-30). Thus, such documents (which are data objects) should at least comprise at least a noun, verb, adverb, phrase, or sentence, because books, articles, and reports should be written in a language. Furthermore, it is suggested that those documents, for example, if they contain one sentence each, would meet the claim limitation.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Brown, to support a noun, verb, etc., as claimed. The motivation would have been to support a user's particular type of document data and data access (e.g., using particular documents of a particular size).

Brown does not expressly teach (filtering) by lexical processing.

However, Kennedy teaches filtering by lexical processing (e.g., col. 4, ll. 44-64, figs. 1, 4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Brown, such that the objects are filtered by lexical processing. The motivation would have been to facilitate providing more relevant

search results, as taught by Kennedy (e.g., col. 4, l. 64 - col. 5, l. 1), and as known to one of ordinary skill in the art.

Brown and Kennedy do not expressly teach identifying previously unknown relationships between an object query and the data objects using an average observed to expected ratio.

However, Brown is drawn to a search environment. There is at least a query-to-results relationship between a query and the data objects (e.g., col. 12, l. 53 - col. 13, l. 10). This also suggests that the relationship is previously unknown because one does not know the search results until after one has entered the search query. Pennock teaches or suggests using an average observed to expected ratio in a search environment, in order to improve relevance, and to allow a user to quickly surmise the contents and characteristics of the database (e.g., col. 4, ll. 1-5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Brown and Kennedy, such that identifying previously unknown relationships between an object query and the data objects using an average observed to expected ratio is implemented. The motivation would have been to facilitate operation of a search engine environment, to improve relevance, and allow a user to quickly surmise the contents and characteristics of the database, as taught by Pennock.

As to claims 2 and 3, Brown as applied above further teaches wherein the source is one or more databases containing textual information or numerical information (e.g., see above, books, images, video, etc., col. 8, l. 19-21).

As to claim 7, Brown as applied above further teaches wherein the domains of information comprise parcels of data as information as text, symbol, numerals, and combinations thereof (e.g., see above, col. 6, ll. 25-30).

As to claim 8, Brown as applied above further teaches wherein the system is at least partially automated (e.g., see above, fig. 1).

As to claim 10, Brown as applied above further teaches wherein the object relationship database is created (see above). The patentability of a product in a product by process claim is based on the product itself. The structure implied by the process steps has been considered, and the process steps are understood not to impart any distinct structural characteristics to the final product. MPEP 2113. Also see below rejection.

As to claim 10, Brown as applied above does not expressly teach the database created using the claimed steps.

However, Kennedy teaches the claimed steps.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Brown, such that the database is created by the steps of Kennedy. The motivation would have been to facilitate a database with better accessibility, as known to one of ordinary skill in the art.

As to claim 11, Brown as applied above does not expressly teach a database of lexical variants from a data source.

However, Kennedy teaches a database of lexical variants from a data source (e.g., fig. 1, #155, fig. 3, see above).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Brown to have a database of lexical variants. The motivation would have been to facilitate processing of objects for increasing the relevancy of results (e.g., using synonyms), as taught by Kennedy (e.g., col. 4, l. 64 - col. 5, l. 1), and as known to one of ordinary skill in the art.

As to claim 12, the combination as applied above further teaches or suggests a program for scanning the database with the database of lexical variants to add synonyms (see e.g., Brown's database, and Kennedy, fig. 3).

As to claim 13, Kennedy as applied above further teaches or suggests a program for checking the object relationship database for errors (e.g., invalid database entry, see fig. 4, #480).

As to claim 14, Brown and Kennedy do not expressly teach the ORD created using the claimed steps.

However, Brown teaches a database and an object ID. Object ID's should be unique in order for the system to distinguish objects. Furthermore, a table should be a list of object ID's in increasing order to facilitate processing. Furthermore, Brown teaches adirectional relationships (see above, e.g., col. 8, ll. 40-45).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Brown, such that the ORD is created with the claimed steps. The motivation would have been to facilitate processing data in a desired organization and order, as known to one of ordinary skill in the art.

As to claim 15, Brown as applied above further teaches wherein an object is retrieved from at least one of the claimed sources (see above).

As to claim 17, Brown as applied above does not expressly teach screening out common words.

However, Kennedy teaches screening out common words (e.g., fig. 4, #440, 450).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Brown, such that common words are screened. The motivation would have been to facilitate a cleaner database for processing, since common words are not significant for database searching, as known to one of ordinary skill in the art.

As to claim 18, Brown as applied above does not expressly teach identifying capitalizations and patterns for words by accessing a word database.

However, Kennedy teaches identifying capitalizations and patterns for words (e.g., synonyms, acronyms) by accessing a word database (e.g., fig. 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Brown, capitalizations and patterns for words are found. The motivation would have been to facilitate data accessibility, search, and retrieval, as known to one of ordinary skill in the art and taught by Kennedy.

As to claims 19, 20, and 24, Brown as applied above does not expressly teach using a synonym database and an acronym resolving algorithm.

However, Kennedy teaches using a synonym database and an acronym resolving algorithm (e.g., see fig. 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Brown, such that a synonym database and an acronym resolving algorithm are used. The motivation would have been to facilitate data accessibility, search, and retrieval, as known to one of ordinary skill in the art and taught by Kennedy.

As to claims 21-22, Brown as applied above further teaches a graphical user interface for displaying one or more objects, and wherein the interface comprise a control element which can be clicked to display the integrated object derived from the context of the source data (e.g., see above and fig. 13).

As to claims 14, 17-20, and 23-29, Brown as applied above further teaches wherein an Object Relationship Database is constructed (see above). These claims are drawn to the process of creating the database. The patentability of a product in a product by process claim is based on the product itself. The structure implied by the process steps has been considered, and the process steps are understood not to impart any distinct structural characteristics to the final product. MPEP 2113. Also see below rejection.

As to claim 23, Brown as applied above does not expressly teach wherein the ORD is constructed using the claimed method.

However, Brown teaches a block of text, a source of data, a record, and arrays. Thus, Brown suggests that an ORD could be constructed using the claimed method.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Brown and Kennedy, such that the ORD is constructed using the claimed method. The motivation would have been to conform to the user's requirements for creating a database.

As to claim 25, Brown as applied above does not expressly teach wherein the method further comprises parsing the record into sentences and parsing each sentence into words.

However, Kennedy strips response of common words, and processes the remaining words (e.g., fig. 4). Thus, Kennedy could parse records into sentences and the sentences into words, to achieve the individual words.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Brown. such that the claimed parsing is implemented. The motivation would have been to facilitate identifying the elements of the document, as taught throughout Kennedy and known to one of ordinary skill in the art.

As to claim 27, Brown as applied above further teaches or suggests wherein the block of text is selected from at least one of the items in the list (see above).

As to claim 29, Brown as applied above further teaches or suggests the claimed subject matter (e.g., see above, col. 15, ll. 20-25).

As to claim 47, Brown as applied above further teaches a computer readable storage medium for storing the object relationship database (see above; fig. 1).

As to claim 48, Brown as applied above further teaches a client/server architecture wherein at least two functions of the system are distributed in a server and at least one client computer connectable to the network (see above, fig. 1).

As to claim 49, Brown as applied above further teaches wherein the system comprises a program for accessing one or more data sources (see above).

As to claim 50, Brown as applied above further teaches wherein the object relationship database is dynamic, and adds new objects from the one or more data sources to the database (see above).

As to claim 51, Brown as applied above further teaches wherein the system recomputes a data object network when new objects are added from the one or more data sources (e.g., see above, col. 8, l. 58 – col. 12, l. 52, fig. 13, note recursive process).

As to claim 52, Brown as applied above further teaches wherein the system further comprises an engine for monitoring re-computation results, and wherein the system re-evaluates relationships between data objects (see above, note iterative/recursive process).

Also as to claims 51-52, assuming that Brown does not expressly teach "recomputing a data object network when new data objects are added from the one or more data sources" or "monitoring recomputation results, wherein the system reevaluates relationships between data objects" (which is not admitted):

Brown teaches an object network of documents (e.g., fig. 2-5). Since the documents are drawn to a computing system (e.g., col. 6, ll. 25-30) for a “planetwide”

search result (e.g., fig. 13), it is suggested that the document set and their relationships can change. For example, someone on the network can add a document, such as creating a new web article, col. 6, ll. 11-30, and the system would thus need to recompute the data object relationship network, monitor recomputation results, and reevaluate relationships between data objects, at least when providing results to the user based on the updated document set, in order to provide correct updated search results.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Brown, such that the claimed subject matter is implemented. The motivation would have been to provide correct updated search results when the set of documents and their relationships have changed.

As to claim 53, the database is "downloadable" to the client computer as claimed because the database is data, and Brown teaches a network and a client computer transferring data.

As to claim 54, Brown as applied above further teaches wherein the database (network) is stored in memory of the server computer and the at least one client can access the database by communicating with the server (see above).

As to claim 55, Brown as applied above further teaches wherein the system further comprises a results and analysis database, wherein the results and analysis database comprises information relating to a query regarding an object relationship and results of the query (e.g., figs. 7, 13, see above).

As to claim 56, Brown as applied above further teaches wherein the results and analysis database further comprises a record comprising information relating to an interpretation of the results (e.g., see above, fig. 13, col. 16, ll. 13-30).

As to claim 57, Brown as applied above further teaches wherein the results and analysis database further comprises data validating the results (see above and fig. 13).

Claims 58, 109, 110, and 151 are rejected based on the same reasoning as one or more of the above claims.

7. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brown in view of Kennedy, Pennock, and Ellis et al (US 6,654,736), hereinafter "Ellis."

As to claim 28, Brown and Kennedy as applied above does not expressly teach wherein the block of text is selected from the Physician's Desk Reference.

However, Ellis teaches a block of text selected from the Physician's Desk Reference (col. 4, ll. 1-5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Brown and Kennedy, such that the Physician's Desk Reference can be accessed. The motivation would have been to add medical sources to be processed, thus increasing the applicability of the system, as known to one of ordinary skill in the art.

8. Claims 16, 26, 59-61, 68, and 69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown in view of Kennedy, Pennock, and Adamic et al. (US 2003/0186243), hereinafter "Adamic."

As to claim 16, Brown and Kennedy as applied above do not expressly teach wherein the objects are at least one of the items in the claimed list.

However, Adamic teaches wherein the objects are at least one of the items in the claimed list (e.g., fig. 1, ¶¶ 0021-0022).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Brown and Kennedy, such that database objects comprise drug information as disclosed by Adamic. The motivation would have been to facilitate search and retrieval of medical information, thus enabling the combination to be applicable in a medical field, as known to one of ordinary skill in the art. Another motivation would have been to facilitate finding genes associated with diseases, as taught throughout Adamic.

As to claim 26, Brown and Kennedy as applied above teaches wherein information (in a database) comprises title (e.g., fig. 6A, #235), but does not expressly teach abstract, date, and PMID fields.

However, Adamic teaches all of title, abstract, date, and PMID fields (e.g., ¶¶ 0021-0022).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Brown and Kennedy, such that the information includes title, abstract, date, and PMID. The motivation would have been to facilitate having a complete record of an item for processing, as known to one of ordinary skill in the art, and seen in Adamic.

As to claim 59, Brown and Kennedy as applied above teaches ranking, but does not expressly teach generating a linear or nonlinear grouping of individual ranking factors.

However, Adamic teaches generating a linear or nonlinear grouping of individual ranking factors (e.g., fig. 4A, ¶¶ 0041-0049).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Brown and Kennedy, such that a linear or nonlinear grouping of individual ranking factors. The motivation would have been to facilitate probabilistic relevance calculations, as taught by Adamic (e.g., ¶ 0043).

As to claim 60, Adamic as applied above further teaches or suggests wherein each individual ranking factor is associated with a coefficient that weighs each term (see above).

As to claim 61, Adamic as applied above further teaches or suggests wherein weight is determined by at least one of the listed factors (see above).

As to claim 68, Adamic as applied above further teaches or suggests wherein the frequency of co-occurrences of objects within the data source is determined (e.g., see above and Fig. 4B).

As to claim 69, Brown and Kennedy as applied above do not expressly teach generating a comprehensive network of relationships to identify implicit relationships.

However, Adamic teaches or suggests wherein a knowledge discovery engine generates a comprehensive network of relationships to identify the implicit relationships

and facilitate probabilistic relevance calculations (e.g., Adamic, see above, ¶¶ 0041-0049). Brown teaches a network of relationships (see above, figs. 2-5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Brown and Kennedy, such that generating a comprehensive network of relationships to identify implicit relationships is implemented. The motivation would have been to facilitate information search and retrieval, and facilitate probabilistic relevance calculations (e.g., Adamic, see above, ¶¶ 0041-0049), as taught throughout Adamic.

9. Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brown in view of Kennedy, Pennock, and Hong et al (U.S. Patent 5,764,799), hereinafter "Hong."

As to claim 45, Brown and Kennedy as applied above does not expressly teach a scanning module comprising a scanner for scanning printed information and generating a data source from the printed information.

However, Hong teaches a scanning module comprising a scanner for scanning printed information and generating a data source from the printed information (e.g., fig. 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Brown and Kennedy, such that a scanning module as claimed is implemented. The motivation would have been to allow scanned information to be electronically searched, as known to one of ordinary skill in the art.

10. Claims 127-130, and 132-135 are rejected under 35 USC 103(e) as being unpatentable over Adamic in view of Brown, Kennedy, and Pennock.

As to claim 127, Adamic teaches a method comprising the steps of identifying one or more co-occurrences of objects within one or more topical sets in a domain of information, and evaluating the probability that one or more co-occurrences of objects represents a meaningful relationship within one or more topical sets (e.g., fig. 4B). Adamic as applied above would further teach or suggest assigning an importance to each relationship based on the evaluated probability (¶¶ 0047-0049).

Adamic does not expressly teach an Object Relationship database comprising objects, wherein each object consists of a noun, verb, adjective, adverb, phrase, sentence, symbol, or numeric character, and using a system comprising the claimed limitations (processor…user interface).

However, Brown, Kennedy, and Pennock as applied above teaches or suggests an Object Relationship database comprising of objects, wherein each object consists of a noun, verb, adjective, adverb, phrase, sentence, symbol, or numeric character, and using a system comprising the claimed limitations (processor…user interface), and using an average observed to expected ratio. See above rejections.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Adamic with Brown, Kennedy, and Pennock as applied above, such that an object relationship database can be used and relations can be identified, retrieved, grouped, ranked, and filtered, and a user interface can be implemented, as claimed. The motivation would have been to provide a computing

platform to process and present the data of Adamic, as known to one of ordinary skill in the art, and as discussed in the above rejection

As to claim 128, Adamic as applied above further teaches wherein the importance is a function of the number of times two objects are co-mentioned within the topical set in the domain of information (e.g., see above, fig. 4A, ¶¶ 0052-0071).

As to claim 129, Adamic as applied above further teaches wherein the importance is a function of the textual distance between two objects (e.g., see fig. 3).

As to claim 130, Adamic as applied above teaches the importance based on relevance (e.g., ¶ 0052).

As to claim 132, Adamic as applied above further teaches wherein a natural language processing engine is used to identify one or more co-occurrences of objects (e.g., from articles, ¶¶ 0021-0022).

As to claim 133, Adamic as applied above further teaches wherein contextual information within the topical set is used to assign importance (e.g., leukemia and MLL documents in a set of medical documents, ¶¶ 0041-0049).

As to claim 134, Adamic as applied above further teaches wherein contextual information within the topical set is used to assign a nature to the relationship (e.g., strength of relationship, ¶ 0047).

As to claim 135, Adamic as applied above further teaches wherein importance is veracity (see e.g., fig. 4B, ¶¶ 0052 – 0071).

11. Claim 131 is rejected under 35 U.S.C. 103(a) as being unpatentable over Adamic in view of Brown, Kennedy, Pennock, and Deligne et al (US 6,314,399), hereinafter "Deligne."

As to claim 131, Adamic, Brown, and Kennedy as applied above teaches importance, but does not expressly teach evaluation of one or more co-occurrence patterns over time.

However, Deligne teaches evaluation of one or more co-occurrence patterns over time (e.g., col. 7, l. 45 – col. 8, l. 14).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Adamic, Brown, and Kennedy, such that one or more co-occurrence patterns over time are evaluated. The motivation would have been to reduce processing complexity for high speed processing of expected number of co-occurrences of a sequence, as taught by Deligne (e.g., col. 7, ll. 45-60; col. 3, ll. 11-15).

Conclusion

12. Applicant's amendment necessitates new grounds of rejection. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E. Lu whose telephone number is (571) 272-8594. The examiner can normally be reached on 8:30 - 5:00; M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Apu Mofiz can be reached at (571) 272-4080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Charles E Lu/
Primary Examiner, Art Unit 2161
11/8/2010